

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: February 21, 1996
Date Received: February 15, 1996
Project: Metro Self Monitor, PO #M52292
Date Samples Extracted: February 20, 1996
Date Extracts Analyzed: February 20, 1996

**RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

Samples Processed Using Method 3005
Results Reported as mg/L (ppm)

| <u>Sample ID</u> | <u>Chromium</u> | <u>Copper</u> | <u>Nickel</u> | <u>Zinc</u> |
|------------------|-----------------|---------------|---------------|-------------|
| M52292 | 0.76 | 1.0 | 0.41 | 0.08 |
| Method Blank | <0.05 | <0.05 | <0.05 | <0.05 |

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Project: Metro Self Monitor, PO #M52292

**QUALITY ASSURANCE RESULTS
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
Samples Processed Using Method 3005**

Laboratory Code: 66614DP

| <u>Analyte:</u> | <u>Reporting Units</u> | <u>Sample Result</u> | <u>Duplicate Result</u> | <u>Relative Percent Difference</u> | <u>Acceptance Criteria</u> |
|-----------------|----------------------------|--------------------------|-----------------------------|--|--------------------------------|
| Chromium | mg/L (ppm) | 0.76 | 0.77 | 1 | 0-20 |
| Copper | mg/L (ppm) | 1.0 | 1.0 | 0 | 0-20 |
| Nickel | mg/L (ppm) | 0.41 | 0.43 | 5 | 0-20 |
| Zinc | mg/L (ppm) | 0.08 | 0.08 | 0 | 0-20 |

Laboratory Code: 66614MS/MSD

| <u>Analyte:</u> | <u>Reporting Units</u> | <u>Spike Level</u> | <u>Sample Result</u> | <u>% Recovery</u> | | <u>Acceptance Criteria</u> | <u>Relative Percent Difference</u> |
|-----------------|----------------------------|------------------------|--------------------------|-------------------|------------|--------------------------------|--|
| | | | | <u>MS</u> | <u>MSD</u> | | |
| Chromium | mg/L (ppm) | 5 | 0.76 | 101 | 97 | 80-120 | 4 |
| Copper | mg/L (ppm) | 5 | 1.0 | 94 | 88 | 80-120 | 7 |
| Nickel | mg/L (ppm) | 10 | 0.41 | 103 | 99 | 80-120 | 4 |
| Zinc | mg/L (ppm) | 5 | 0.08 | 101 | 101 | 80-120 | 0 |

Laboratory Code: Spike Blank

| <u>Analyte:</u> | <u>Reporting Units</u> | <u>Spike Level</u> | <u>% Recovery MS</u> | <u>Acceptance Criteria</u> |
|-----------------|----------------------------|------------------------|--------------------------|--------------------------------|
| Chromium | mg/L (ppm) | 5 | 100 | 80-120 |
| Copper | mg/L (ppm) | 5 | 93 | 80-120 |
| Nickel | mg/L (ppm) | 10 | 102 | 80-120 |
| Zinc | mg/L (ppm) | 5 | 100 | 80-120 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3012 16th Avenue West
Seattle, WA 98119-2029
FAX: (206) 283-5044

February 21, 1996

INVOICE # 96ACU0221-1
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M52292: Results of testing requested by
Gerry Thompson, Project Manager for material submitted on February 15,
1996.

1 process water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FRIEDMAN & BRUYA, INC.

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FAX: (206) 283-5044

February 21, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on February 15, 1996 from your Metro Self Monitor, PO #M52292 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

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Enclosures
FAX: 0382-7335
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